Orange County MS4 Permit Urban Storm Water Runoff Management Program

Order No. R8-2008-0030 (NPDES No. CAS618030)

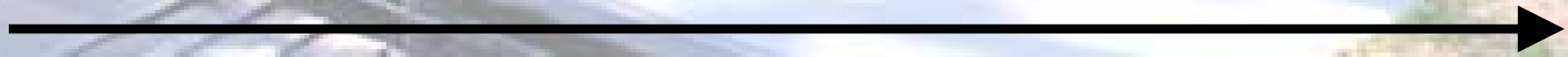
Public Workshop
November 21, 2008

Mark Smythe
Senior Environmental Scientist
Coastal Storm Water Unit
Santa Ana RWQCB

History of Storm Water

- National Pollutant Discharge Elimination System (NPDES) was established in 1972 through the Federal Clean Water Act to control point source pollution.
- In 1987, Federal regulations required industries and large municipalities to obtain NPDES permits for their storm water runoff.
- The three Region 8 MS4 permits were adopted in 1990 and the two Statewide storm water permits were adopted in 1992.

Shift of Regulatory Focus



Point Sources

Non-Traditional Point Sources

sewage treatment plants, major industrial dischargers	Construction site runoff, industrial runoff, municipal activities	Service activities, commercial act., residential act., new development & redevelopment planning

Storm Water Permits

- Statewide General Construction
- Statewide General Industrial
- Caltrans

<u>Other storm water discharges regulated through:</u>

- MS4 - Municipal Separate Storm Sewer System
  - Municipal activities
  - Industrial and construction activities
  - Commercial and service activities
  - Residential activities

Municipal Permit Overview

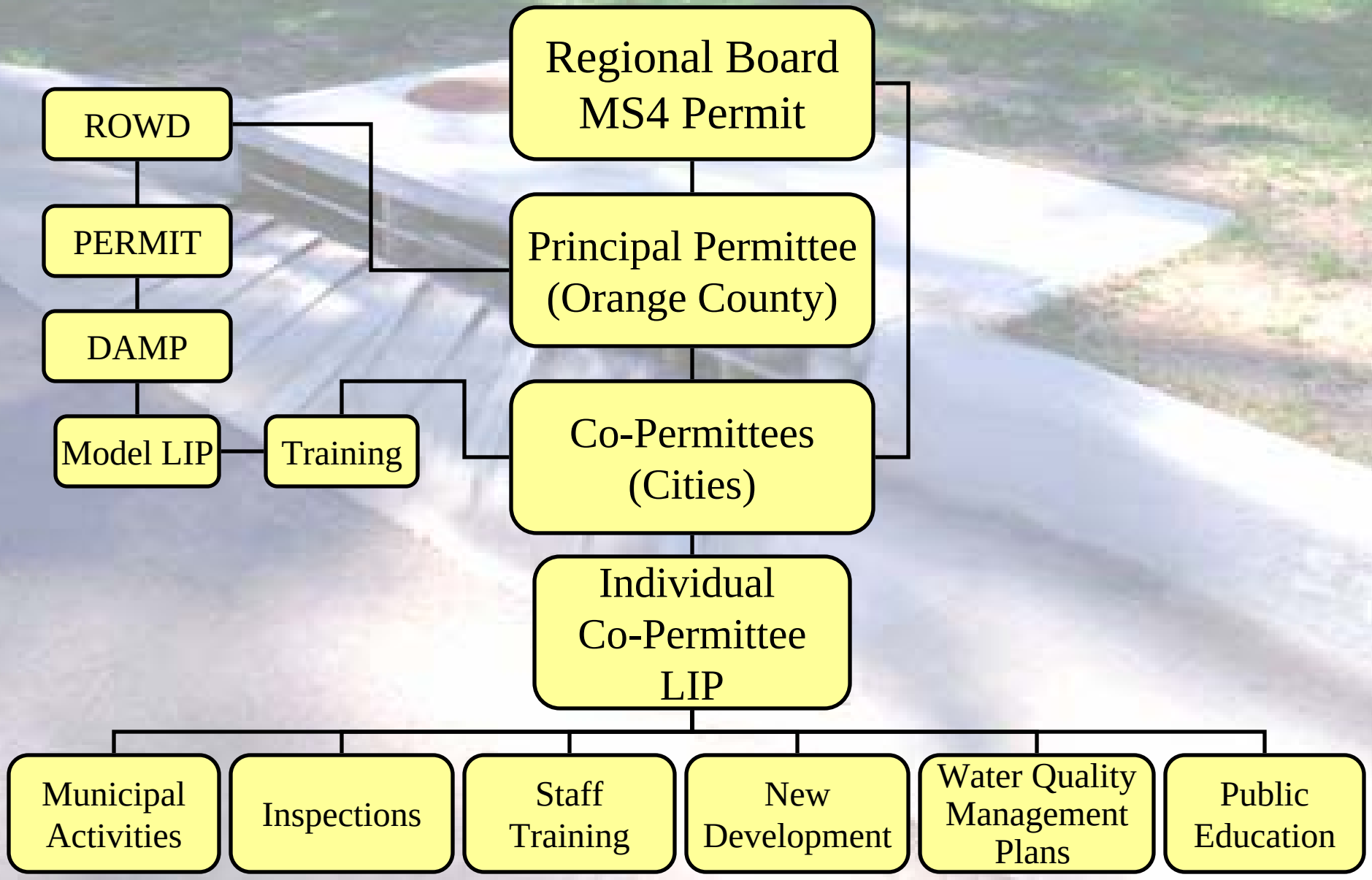
- MS4 permits have not historically had numeric effluent limits, but TMDLs change that.
- For the most part, permittees must reduce pollutant loads in discharges from their MS4 to the **"Maximum Extent Practicable (MEP)."**
- Where MEP takes into account such issues as: the gravity of the problem, technical & economic feasibility, public health risks and societal benefits and concerns.

Maximum Extent Practicable

The permittees meet that MEP standard through an iterative process.

- If water quality standards (wqs) aren't being met,
- Implement Best Management Practices (BMPs)
- Monitor
- If there are still wqs exceedences,
- Implement improved BMPs
- Monitor

Permit Process



Program From 1990-1996 OC MS4 Permit

- Public education
- Enforcement of Water Quality Ordinances
  - Prohibition of illegal connections to MS4
  - Prohibition of illicit discharges (dumping)
  - Prohibition of most non-storm water discharges.
- BMP implementation for municipal activities
- Requiring Water Quality Management Plans for new development.

2002 Permit Emphasis

- Municipal inspection program
  - Construction and Industrial Sites
  - Commercial and Restaurants
- More structural post construction BMPs for new development and re-development
- First time Total Maximum Daily Loads (TMDLs) were implemented

Total Maximum Daily Load (TMDL) Implementation

- TMDLs are developed when a water body fails to support it's designated Beneficial Uses
- Load Allocations for urban runoff are enforced through the MS4 Permits
- The 2002 permit included load allocations for nutrients and sediment in the San Diego Creek and Newport Bay watersheds and fecal coliform for the Newport Bay watersheds
- To date, the load allocation targets have been met.

Changes with the Draft 2008 Permit

- Increased Permitee Accountability
  - Results from Municipal Program Audits
- Municipal Inspection Programs
- New Development/Re-development Requirements
- Additional TMDL Requirements

Proposed Increase in Permittee Accountability

- Water Quality Management Plan Review
- Water Quality Ordinance Enforcement
- Local Implementation Plan

Proposed Changes to the Inspection Program

Construction

- Emphasis on abandoned/idle sites.
- Lower size thresholds for medium and high prioritization.
- Conformance with the Statewide Construction Storm Water permit when it's adopted by the State Board.

Commercial

- Mobile cleaning services enforcement strategy

Residential Program

- New Program

Proposed Residential Inspection Program

- Permittees are to identify, track, enforce & evaluate residential sources
- Common interest area control measures
- Household Hazardous Waste Program
- Annual Report reporting criteria

New Development and Significant Re-development

This draft permit emphasizes the use of Low Impact Development (LID) as a way of mitigating development's effect on flows and pollutant loading.

Low Impact Development (LID)

- The goal of LID is to mimic pre-development site hydrology through technically and economically feasible source control and site design.
- 5% Effective Impervious Area (EIA)
  - permeable paving, infiltration, rain barrels, bioswales, rain gardens, etc.
- Drawbacks
  - Shallow groundwater, clayey soils, subsidence & **space**
- Alternatives
  - Included in Permit should site conditions be infeasible

New TMDL Requirements

Impaired Waters Status

- 303(d) listed, but no TMDL.
- Technical TMDL, but no implementation plan
  - Region 4 metals TMDL for San Gabriel River.
- TMDL/implementation plan adopted, but compliance dates are beyond the permit term.
- TMDL/implementation plan adopted, compliance dates within permit term.

Current TMDLs

- Diazinon in San Diego Creek
- Chlorpyrifos in San Diego Creek and Upper Newport Bay
- Nutrients in San Diego Ck and Newport Bay
- Sediment in San Diego Ck and Newport Bay
- Fecal Coliform in Newport Bay

Conclusions & Proposed Permit Direction

- The Proposed Permit is building on the current 2002 Permit
- Increased Accountability of Co-Permittees
- Several Program Adjustments
  - Residential Pollution Control Oversight
  - TMDL
  - WQMP Review

Informal Comments

Prior to public release, informal comments were solicited from:

- Orange County and Co-Permittees
- Orange County CoastKeeper
- BIA
- NRDC
- U.S. EPA

Anticipated Timeline

December 30, 2008	**Deadline for written comments on the 1st draft permit.**
January 26, 2009	**Release of 2nd draft permit.**
March 2009	**2nd workshop at regular Board Mtg.**
April 2009	**Release of final draft**
May 2009	**Deadline for written comments prior to Public Hearing**
May/June 2009	**Public Hearing on proposed permit**